

U.S. Army Corps of Engineers: Support to Domestic Incidents Under the Stafford Act

**A Monograph
by
MAJOR William B. Moen
U.S. Army**



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas**

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Approved by:

Dan C. Fullerton, Ph.D.

Monograph Director

Thomas J. Langowski, COL, LG

Monograph Reader

Stefan Banach, COL, IN

Director,
School of Advanced
Military Studies

Robert F. Baumann, Ph.D.

Director,
Graduate Degree
Programs

Abstract

U.S. ARMY CORPS OF ENGINEERS: SUPPORT TO DOMESTIC INCIDENTS UNDER THE STAFFORD ACT by MAJOR William B. Moen, U.S. Army, 54 pages.

One of the fundamental roles of all levels of government is to respond to domestic emergencies to save lives, protect property, and promote public health and safety. USACE provides vital assistance to the nation during disasters. The disaster response and recovery process is complex and dynamic, often requiring USACE to assume a multifunctional role. Within this system USACE acts in support of the Stafford Act providing assistance to the Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) in the areas of public works and engineering – Emergency Support Function #3 (ESF #3). In the role of Defense Support of Civil Authorities (DSCA), under the authority of the Stafford Act, USACE also supports U.S. Northern Command (USNORTHCOM) with augmentation of Title 10 forces. This monograph defines and examines these roles, identifying the current issues - inefficiencies and points of tension that inhibit USACE in response to domestic incidents in the ESF #3 and DSCA roles - and offer potential solutions to increase the effectiveness of USACE in response to domestic incidents.

The current system and structure contains tensions, inefficiencies, and redundancies that potentially inhibit effective and efficient support to domestic incidents. In both the ESF #3 role and in the DSCA role of augmenting the Combatant Command (COCOM) and Joint Forces Land Component Command (JFLCC) engineer staffs, conflicting requirements and responsibilities exist. The function that USACE serves in response to domestic incidents is critical to stem human suffering and maintain the confidence of the American people in the abilities of their government. Therefore, this monograph identifies the issues and points of tension through the process of analyzing the lessons learned, practitioners in the ESF #3 function, the COCOM and JFLCC engineer staff, and USACE personnel. Through the implementation of these recommendations, effectiveness of USACE in response to domestic incidents can be increased.

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I. INTRODUCTION

The United States Army Corps of Engineers' (USACE) role in the nation's response to natural disasters began its journey after the Civil War. Officially, USACE's inaugural disaster relief mission was the Mississippi Flood of 1882. The Engineers supported the Quartermaster Corps' efforts to rescue citizens and property. Engineers solidified their role in disaster response, consequently playing a vital role, responding to subsequent events including the Johnstown, Pennsylvania, flood of 1889 and the San Francisco earthquake of 1906.¹ One of the fundamental roles of all levels of government is to respond to domestic emergencies to save lives, protect property, and promote public health and safety. Considering the significance of this response mission, the development and refinement of doctrine, practices, and procedures, justifies at least as much emphasis as military operations abroad. *FM 3-0, Operations*, puts support to civil authorities on par with offense, defense, and stability operations.²

Today, USACE continues to provide vital assistance to the nation prior to and during disasters. The disaster response and recovery process is complex and dynamic, often requiring USACE to assume a multifunctional role. Within this system USACE acts in support, under the auspices of the Stafford Act, providing assistance to the Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) in the areas of public works and engineering – Emergency Support Function #3

¹ U.S. Army Corps of Engineers, *The U.S. Army Corps of Engineers: A Brief History*, <http://www.hq.usace.army.mil/history/Brief/09-disasters/disaster.html> (accessed November 26, 2008).

² U.S. Department of the Army, *FM 3-0: Operations* (Washington, D.C.: G.P.O., 2008), viii.

(ESF #3).³ In the role of Defense Support of Civil Authorities (DSCA), under the authority of the Stafford Act, USACE also supports U.S. Northern Command (USNORTHCOM) with augmentation of Title 10 forces.⁴ Lastly, under Public Law 84-99, the Chief of Engineers takes action to prepare for flood related disasters, respond to floods, rehabilitate flood control works, mitigate hazards, and provide assistance during droughts.⁵ The following chapters define and examine these roles.

The function that USACE serves in response to domestic incidents, namely disaster relief, is critical to stem human suffering and maintain the confidence of the American people in the abilities of their government. The assumption of at least three roles, each with different functions, funding sources, and authorities, adds complication to an already complex system. This monograph serves to identify the current issues - inefficiencies and points of tension that inhibit USACE in response to domestic incidents in the ESF #3 and DSCA roles - and offer potential solutions to increase the effectiveness of USACE in response to domestic incidents.

The most influential events affecting current policy, Hurricanes Katrina and Rita provided several lessons learned and consequential changes that established the current National Response Framework (NRF) and its supporting functions. Additionally, after

³ U.S. Department of Homeland Security, *National Response Framework* (Washington, D.C.: DHS, 2008), Emergency Support Function Annexes Introduction-vi.

⁴ U.S. Army Corps of Engineers, "Operations Order 2006-25 USACE Support to National Response Plan," *All Hazards OPORD 2006* (Washington, D.C.: HQ, U.S Army Corps of Engineers, June 15, 2006).

⁵ U.S. Congress, *Section 5 of the Flood Control Act of 1941, as amended, (33 U.S.C. 701n) (69 stat 186): Public Law 84-99, Flood Control and Coastal Emergencies (FCCE)* (Washington D.C.: G.P.O., 1986).

action reviews from recent Department of Defense (DoD) training events capture the issues identified regarding USACE and engineer augmentation to the Combatant Command (COCOM) and Joint Task Force (JTF) staffs. Lastly, interviews with USACE leadership and practitioners in the ESF #3 function, the COCOM and Joint Forces Land Component Command (JFLCC) engineer staff, and USACE personnel, garner information to identify issues. Information from these sources serves to identify redundancies, points of tension and inefficiencies and offers potential solutions.

Research Question

What are the inefficiencies and points of tension that inhibit USACE in response to domestic incidents in the Emergency Support Function #3 (ESF #3) – Public Works and Engineering - and Defense Support of Civil Authorities (DSCA) capacities supporting the NRF under the authority of the Stafford Act? What are the issues pertaining to ESF #3 that cause tension or create inefficiency? What are potential solutions? What are the issues that USACE faces in the DSCA role? Is USACE the correct organization? What changes will make the systems more efficient and effective?

Working Hypothesis

The current system and structure adopted by USACE contains several points of tension and redundancies that inhibit effective and efficient support to domestic incidents. In both the ESF #3 role and in the DSCA role of augmenting the COCOM and JFLCC staffs, conflicting requirements and responsibilities exist. Since most USACE personnel are dual-hatted, normal USACE operations stop while personnel support ESF #3 or DSCA operations, often with little or no notice. Additional training requirements and the

tracking of funding and cost reimbursement are issues. During ESF #3 operations, lack of asset visibility hampers effectiveness. In support of DSCA, command and control is no longer available to assist in the ESF #3 role if other emergencies arise in their geographically assigned Division/District.

Significance of Research

The role that USACE serves in response to domestic incidents, namely disaster relief, is critical to stem human suffering and maintain the confidence of the American people in the abilities of their government. This monograph serves to identify issues and offer potential solutions to increase the effectiveness of USACE in response to domestic incidents.

Literature Review

To answer the research question the author will set out to determine the roles of USACE in support of the NRF, and then further define the roles in support of ESF #3 and DSCA, along with points of tension or other critical issues. Important sources include the NRF, Presidential Directives, Congressional Acts, and USACE Directives. The germane issues related to Hurricanes Katrina and Rita are well documented in the after action reviews by USACE. Since USNORTHCOM and U.S. Army North (USARNORTH) are relatively new in their DSCA roles, assuming responsibility in October 2003 and October 2006, respectively, sources include journals articles and Congressional testimony. The after action reviews by USNORTHCOM, USARNORTH, and USACE during Ardent Sentry and Vigilant Shield, National Hurricane Preparedness Exercises, provided information related to the engineer augmentation of JFLCC staff.

Tentative Solutions

In the role of the ESF #3 primary agent, changes in the process would make the system more efficient. These include exploring methods such as establishing relationships with the state and private sector to coordinate donations and the implementing satellite tracking of commodities. USACE should also maximize the practice of setting up and maintaining pre-established contracts in high-risk areas to provide emergency services in the event of a natural disaster.

USACE should sustain the training of its response teams and seek opportunities to include scenarios that involve numerous FEMA regions, USACE Divisions and Districts, and states, such as the New Madrid Seismic Zone (NMSZ) to exercise cross boundary coordination. Liaisons are crucial to situations such as this, and are necessary to maintain situational awareness and a common picture. Therefore, USACE should continue to exploit the use of liaisons. USACE should also consider changes in its DSCA support.

In respect to DSCA, USACE should continue to support USNORTHCOM and USARNORTH with engineer staff augmentees as an interim solution to the shortage of engineer staff until revamping the engineer structure of the organization. Furthermore, a JMD and supporting MTOE changes are required to enable this fix. Training exercises, exploring the possibility of using a remote working staff, further resourcing the communications infrastructure of the JFLCC, streamlining funding methods for training and deployment, and establishing common terminology for infrastructure reconnaissance, will make the process more efficient and effective.

Paper Organization

To provide the reader with a framework and understanding of the roles of USACE in supporting the NRF, in both ESF #3 and DSCA functions, Chapter II defines constraints, authorities, and engineer functions under ESF #3. Chapter III provides analysis of issues, tensions, and challenges that engineers faced in the ESF #3 role during previous natural disasters and training exercises. This includes Hurricanes Katrina, Rita, and Gustav, as well as preparedness exercise including Vigilant Shield and Ardent Sentry. Chapter IV provides an analysis of the same in relation to the DSCA function. Chapter V summarizes the previous chapters' conclusions and provides recommendations for resolving issues.

II. AUTHORITIES AND ROLES

This chapter defines authorities and roles in terms of engineer functions under ESF #3 and DSCA in support of the NRF under authority of the Stafford Act. Although USACE performs duties to prevent and mitigate the effects of flooding, this monograph will not discuss that aspect because USACE does not act in support of the NRF under the Stafford Act in this instance.⁶ These definitions are the underpinnings for later discussion and define how the system operates as it does. The organization of these documents is from the National to the USACE level.⁷

National Policy

The National Strategy for Homeland Security lays out the strategic objectives, organization, critical areas, and foundations for homeland security. The strategy defines objectives including preventing terrorist attacks, reducing the nation's vulnerabilities, minimizing the damage and recovering from attacks that do occur. This document also

⁶ For the purposes of this paper, other authorities influence DSCA operations, but are not relevant to the discussion. They include the Posse Comitatus Act (PCA), Title 10, and Title 32. PCA (Title 18 USC, Section 1385) is the federal statute that limits the use of federal military personnel for law enforcement. The PCA prohibits the willful use of Title 10 forces to execute the laws except as authorized by the Congress or the US Constitution. The PCA does not apply to National Guard (NG) forces or to the United States Coast Guard (USCG), which operate in Title 32 USC status or Title 14 USC authority. Title 10 USC provides the legal basis for the roles, missions, and organization of each of the services as well as the DoD. Title 32 USC authorizes the use of federal funds to train NG members while they remain under the command and control of their respective state governors. Specific statutory or Presidential authority allows those forces to perform operational missions funded by the Federal government while still under the control of the governor in limited circumstances (e.g. Airport Security Mission in 2001 and the Southwest Border Security Mission in 2006).

⁷ USACE performs public works and engineering in several flood-impacted areas under another authority, Public Law 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. §701n). Under this law, acting on behalf of the Secretary of the Army, the Chief of Engineers may undertake activities including disaster preparedness, emergency operations, rehabilitation, advanced measures, and hazard mitigation. This monograph will not discuss this aspect, as USACE does not act in support of the Stafford Act in this instance.

identifies the role of DOD in protecting key infrastructure, namely the lead agency for the defense industrial base sector.⁸

The Homeland Security Act of 2002 established the Department of Homeland Security to coordinate all federal homeland security efforts in order to guard against threats to the homeland. Congress established DHS by merging several agencies into a single unified authority, charged with the overarching mission of guarding the Nation.^{9, 10}

The Homeland Security Presidential Directive-5 (HSPD-5), *Management of Domestic Incidents*, assigns the Secretary of the Department of Homeland Security as the Principal Federal Official (PFO) for domestic incident management. The Secretary of Defense (SecDef) retains authority over DoD and command of the military forces providing civil support. HSPD-5 requires the SecDef to “...provide military support to civil authorities for domestic incidents as directed by the President or when consistent with military readiness and appropriate under the circumstances and the law.”¹¹

HSPD-5 defines the PFO’s role in coordinating the federal government’s response and/or recovery from disasters or other emergencies. When the state and local authorities exhaust their capabilities, or when federal wellbeing is at stake, the federal government provides assistance through a tiered response program. Additionally, HSPD-5 directed

⁸ George W. Bush, *National Strategy for Homeland Security* (Washington, D.C.: Office of Homeland Security, 2002), 32.

⁹ U.S. Congress, *Homeland Security Act of 2002* (Washington D.C.: G.P.O., 2002).

¹⁰ Under the Homeland Security Act of 2002, DHS assumed responsibility of a number of services, offices and other organizations such as FEMA, U.S. Customs Service, U.S. Coast Guard, and U.S. Secret Service. This became the largest reorganization within the federal government since the formation of DoD under the National Security Act of 1947.

¹¹ George W. Bush, *Homeland Security Presidential Directive/HSPD-5 National Preparedness* (Washington D.C.: White House Office of the Press Secretary, 2003), 2.

the development of the National Incident Management System (NIMS) to standardize procedures, preparedness measures, response coordination, and obtaining assistance. HSPD-5 also directs the development of the National Response Plan (NRP) [NRF].¹² In combination with the NIMS, the NRF provides the framework, national policy, and operational guidance for the employment of federal assistance to support state and local authorities.¹³

Stafford Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Public Law 106-390, April 2007; § 5170b, establishes the statutory authority for most federal disaster responses. In the system, a Presidential Disaster Declaration prompts financial and physical assistance through DHS's delegated authority, FEMA. FEMA coordinates the government wide relief efforts. Figure 1 provides a general overview of the process.

¹² NRF superseded the NRP in January 2008. *HSPD-5*, written in 2003, still used the prior terminology National Response Plan (NRP).

¹³ George W. Bush, *Homeland Security Presidential Directive/HSPD-5 National Preparedness*, 2-3.

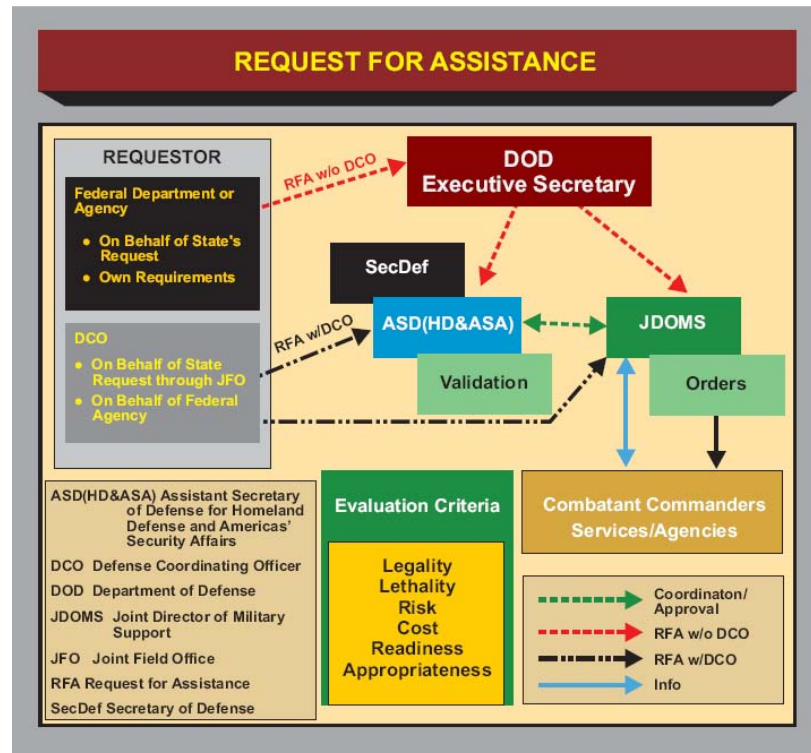


Figure 1: Request for Assistance Under the Stafford Act.¹⁴

The National Response Framework describes how the local, state, and federal governments coordinate their efforts to respond to a disaster. The NRF outlines the processes, roles, and responsibilities for requisition and provision of federal assistance. For example, if the local and state government exceeds or anticipates exceeding its capabilities, the state may submit a formal request for assistance (RFA). The Governor is responsible for requesting federal assistance for incidents within his/her state. How the RFA is processed depends on whether it falls under the Stafford Act, the urgency of the incident, and the request originator. For requests under the Stafford Act, made through a

¹⁴ U.S. Department of Defense, *Joint Publication 3-28: Civil Support* (Washington D.C.: G.P.O., 2007), II-4. The Command and General Staff College Copyrights Coordinator granted copyright reprint permissions for this figure on March 4, 2009.

federal department or agency, the Federal Coordinating Officer (FCO) receives RFAs from civil authorities at the incident site and submits them to the Office of the Executive Secretary of the Department of Defense. The requests are then forwarded to the Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs (ASD(HD&ASA)) and then to the Joint Director of Military Support (JDOMS) for substantiation and orders processing. When a *Defense Coordinating Officer (DCO)* is at the incident site, the DCO submits RFAs directly to ASD (HD&ASA). Once the SecDef approves the request, USNORTHCOM and/or executing agencies receive the resulting orders.¹⁵

In addition to outlining the processes for requesting federal assistance, the NRF groups capabilities of government and certain private-sector organizations into a configuration to provide the support – the Emergency Support Functions (ESFs). The NRF summarizes each of the 15 ESFs defining the guidelines, roles, and structures. Of these functions, ESF #3 - Public Works and engineering - is the responsibility of USACE.¹⁶

Emergency Support Function #3

As described in the Stafford Act and in the NRF, USACE is the Primary Agent to accomplish ESF #3 on behalf of DoD during the response to a disaster.¹⁷ Additionally,

¹⁵ U.S. Department of Defense, *Joint Publication 3-28: Civil Support*, chap. II.

¹⁶ U.S. Department of Homeland Security, *National Response Framework*, 1-8.

¹⁷ USACE is the primary agency for ESF #3 - Response under the NRF. FEMA is designated the primary agency for ESF #3 - Recovery. FEMA manages the infrastructure recover programs under the Public Assistance Program, 44 CFR § 206.

USACE Title 10 personnel serving under DSCA function support all ESFs.¹⁸ Figure 2 depicts the primary and alternate ESF responsibilities of DoD and USACE.

EMERGENCY SUPPORT FUNCTION	DoD	DoD / USACE
ESF #1: Transportation	S	S
ESF #2: Communications	S	
ESF #3: Public Works and Engineering	S	C/P
ESF #4: Firefighting	S	S
ESF #5: Emergency Management	S	
ESF #6: Mass Care, Emergency Assistance, Housing, and Human Services	S	S
ESF #7: Logistics Management and Resource Support	S	S
ESF #8: Public Health and Medical Services	S	S
ESF #9: Search and Rescue	P (aerial)	S
ESF #10: Oil and Hazardous Materials Response	S	S
ESF #11: Agriculture and Natural Resources	S	S
ESF #12: Energy	S	S
ESF #13: Public Safety and Security	S	S
ESF #14: Long-Term Community Recovery	S	S
ESF #15: External Affairs	S	

C= Coordinating Agency P=Primary Agency S=Supporting Agency

Figure 2: DoD ESF Responsibilities.^{19, 20}

USACE Policy

In addition to supporting ESF #3 functions within DoD/USACE, USACE supports DSCA under DoD/USNORTHCOM. In 2006, due to insufficient organic engineer staff, Headquarters USACE designated its divisions to support engineer cell augmentation of USNORTHCOM and its JTFs. USACE designated the Northwestern Division (NWD) to support the USNORTHCOM and USARNORTH / JFLCC staffs. Other support includes the North Atlantic Division (NAD) supporting Joint Forces Headquarters-National Capital Region (JFHQ-

¹⁸ U.S. Department of Homeland Security, *National Response Framework*, 58.

¹⁹ Ibid., Emergency Support Function Annexes Introduction-vi.

²⁰ ESF Coordinating Agency: USACE coordinates meetings, plans, exercises, training, and other activities with FEMA, the private sector, and the ESF #3 support agencies. Primary Agency – Response: USACE directs and coordinates on the scene response activities and resources performing assigned tasks, for example ice, water, emergency power, debris removal, temporary housing, emergency access, temporary roofing, and assessments of structural safety.

NCR), Lakes Region Division (LRD) supporting JTF-Civil Support (JTF-CS), and Pacific Ocean Division (POD) supporting the Alaska Command (ALCOM).²¹

Figure 3 depicts illustrates the organization of USACE, while Figure 4 illustrates the support relationship to USNORTHCOM.

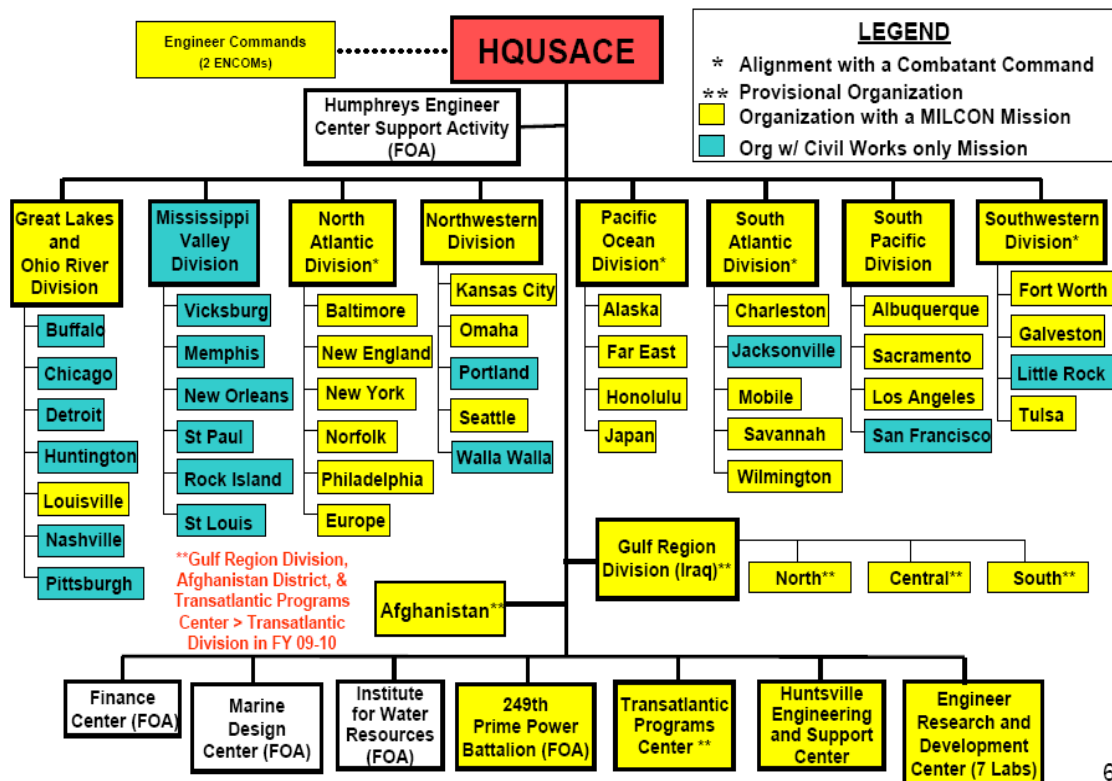


Figure 3: U.S. Army Corps of Engineers Organizational Structure.²²

²¹ U.S. Army Corps of Engineers, *All Hazards OPORD 2006*.

²² James C. Dalton, "U.S. Army Corps of Engineers Construction Programs and Initiatives," *NIBS-FEDCon 2008 Conference*. (December 9, 2008), www.wbdg.org/pdfs/fedcon08_dalton.pdf (accessed February 14, 2009). The Command and General Staff College Copyrights Coordinator granted copyright reprint permissions for this figure on March 4, 2009.

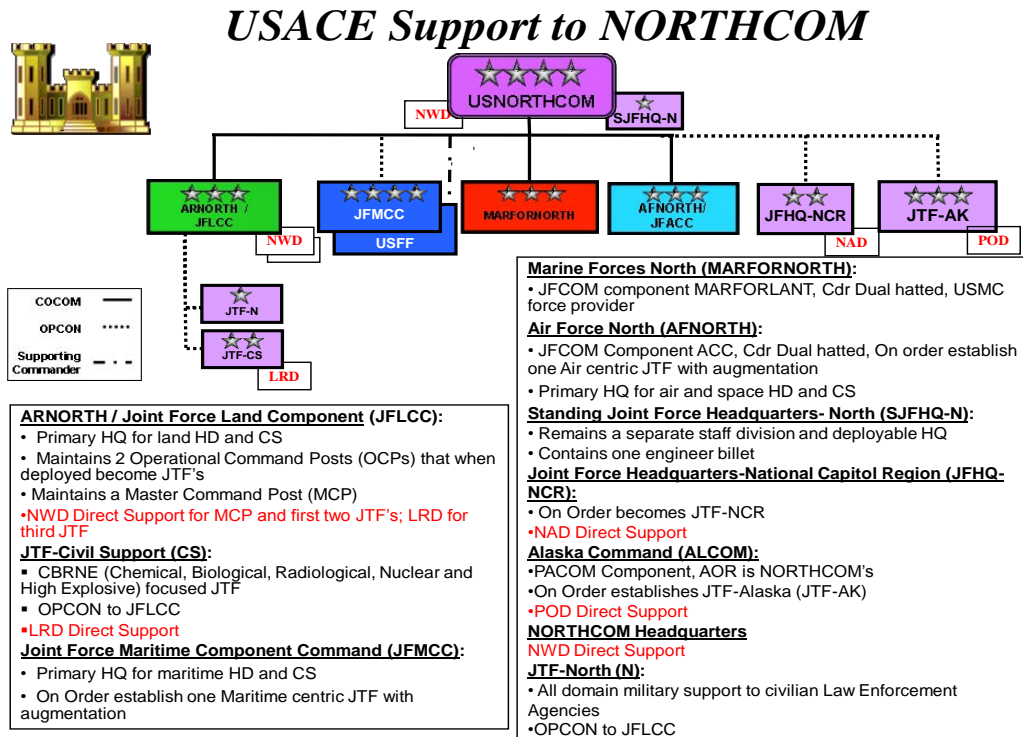


Figure 4: U.S. Army Corps of Engineers Engineer Cell Augmentation.²³

The Chief of Engineers intended to eliminate the unplanned nature of engineer augmentation characterized during Hurricanes Katrina and Rita by establishing habitual relationships with supported staffs. Staffs coordinated with their supported elements to integrate into training and initiate contingency planning and coordination.²⁴ This change increased the importance of USACE in responding to disasters, now responding both in the ESF #3 role and the DSCA role under the NRF and Stafford Act.

²³ U.S. Army Corps of Engineers, "USACE Engineer Cell Augmentation to NORTHCOM JTF's," *U.S. Army Corps of Engineers* (June 2006), https://rsc.usace.army.mil/teece/level3empro/ATL_docs/day%205/03%20%20JTF%20Spt%20for%20ATL%20Course.ppt (accessed November 13, 2008). The Command and General Staff College Copyrights Coordinator granted copyright reprint permissions for this figure on March 4, 2009.

²⁴Ibid.

III. EMERGENCY SUPPORT FUNCTION #3

“Logistics, if it was easy it would be called taxes.”²⁵

- Retired Army Lieutenant General Russel L. Honoré,
“The Ragin' Cajun' ”

Activities under ESF #3 can include pre-incident planning and staging, as well as post-incident response. USACE is both the Coordinating Agency for ESF #3 and the Primary Agency for response to a disaster. As the ESF #3 Coordinator, USACE is responsible for pre-incident planning and critical infrastructure preparedness, synchronizing all supporting agencies including the private sector. As used in this framework, *response* includes the immediate actions to save lives, protect property and the environment, and meet basic human needs.²⁶ For this reason, response is the most critical aspect and most germane to this discussion.²⁷ This chapter outlines the organization, processes, scope, and historical issues within the ESF #3 response, whose Primary Agent is USACE.

USACE Organization

USACE is a geographically diverse organization with offices located throughout the United States as well as abroad.²⁸ Alignment of the USACE Divisions coincides

²⁵ Russel D. Honoré, LTG (Ret), "Leadership: Building a Culture of Preparedness" (speech to the International Association of Emergency Management-USA Annual Conference. Overland Park, Kansas, November 17, 2008).

²⁶ U.S. Department of Defense, *Joint Publication 3-28: Civil Support*, x.

²⁷ Pre-incident actions can reduce or prevent damage and may include inspecting flood control works, implementing structural and nonstructural mitigation measures, prepositioning assessment teams and contractors, deploying advance support elements.

²⁸ USACE is also located in more than 91 countries including a division in Iraq and districts in Afghanistan, Europe, Korea, and Japan.

with the eight regional drainage basins. Smaller drainage basins further delineate USACE Divisions into the corresponding 38 Districts. This geographical assemblage coincides with the waterways and facilitates the supporting Civil Works projects.²⁹ This dispersion enables USACE to provide immediate response to disasters within the US and enables unaffected Divisions to support Divisions/Districts in the impacted area.³⁰

During a disaster, the Divisions within USACE provide support to each other based on the type of response required and assets available. The affected Division typically becomes the Supported Regional Command and the lead division for the response effort. As required, additional USACE assets are assigned from unaffected Divisions/Districts to enable the lead Division to support the response effort. The effort is a national strategy that rotates responsibilities and requirements in accordance with availability, capabilities, and other ongoing missions.³¹

The ESF #3 Management Team (MT) is the link between USACE and FEMA at the Joint Field Office (JFO). The ESF #3 MT is the USACE authorized representative and staff element to coordinate missions with FEMA, other federal agencies, the state, and local agencies. The composition of the teams includes a Team Leader (TL), Assistant Team Leader (ATL), Subject Matter Experts (SMEs), administrative assistants,

²⁹ Military projects usually follow state boundaries, not the Civil Works boundaries. However, in responding to natural disasters the Civil Works boundaries determine the supporting and supported organizations due to nature of the cause.

³⁰ U.S. Army Corps of Engineers, "*Responding to Emergencies: The Role of the U.S. Army Corps of Engineers in Support of the Nation*," <http://www.spn.usace.army.mil/infopaper.pdf> (accessed January 27, 2009).

³¹ U.S. Army Corps of Engineers, *All Hazards OPORD 2006*.

liaisons, action officers, logistic representatives, and prime power representatives as appropriate.

USACE organizes and manages its resources based on Planning and Response Teams (PRTs).³² These teams are the core of the response. Within USACE's Districts are 48 PRTs. Each PRT is dedicated to one of USACE's prescribed mission requirements. The response tasks focus in the areas of providing ice, drinking water, emergency power to public facilities, debris removal, emergency access, temporary housing, temporary roofing, and conducting structural safety assessments. Each PRT is comprised of two sections, management and support. The management section is the initial cell deployed to coordinate the operation, if required the support elements follows and begins operations.³³ PRT members are deployable within short notice; usually less than six hours of notice, supporting 24-hour operations and capable of extended deployments.³⁴ Several teams are available for each task area, enabling USACE to provide a tailored response to the specific emergency or multiple incidents.³⁵ Figure 5 depicts the organization of the PRTs within USACE.

³² U.S. Army Corps of Engineers, *Responding to Emergencies: The Role of the U.S. Army Corps of Engineers in Support of the Nation.*

³³ U.S. Army Corps of Engineers, *ESF #3 Field Guide* (Washington D.C., June 2006), 5-2.

³⁴ The typical composition of the PRT may include the ESF #3 Action officer, Mission Manager, Mission Specialist, Database Manager, Resident Engineer, Real Estate Specialist, Quality Assurance (QA) Team Leader, and Logistics Manager. Figure 5 further defines the team composition for each mission.

³⁵ U.S. Army Corps of Engineers, *Responding to Emergencies: The Role of the U.S. Army Corps of Engineers in Support of the Nation.*

Mission Planning and Response Teams

Missions	PRT District(s)	Team Composition (Management Element in Bold.)	
National Ice	• Charleston • Albuquerque	ESF #3 Action Officer Mission Manager Mission Specialist Contract Specialist	National Commodities Site Manager National Commodities Data Manager Commodity QA
National Water	• New England • Kansas City	ESF #3 Action Officer Mission Manager Mission Specialist Contract Specialist	National Commodities Site Manager National Commodities Data Manager Commodity QA
Combined Commodities	• Detroit • Chicago • Galveston • Vicksburg • Albuquerque • Kansas City • Rock Island • New England • Seattle • Little Rock • Norfolk • San Francisco • Charleston • Wilmington	ESF #3 Action Officer Mission Manager Mission Specialist Field Data Specialists Commodity Site Manager Commodity QA Supervisor	Contract Specialists (optional)
Emergency Power	• Pittsburgh • Honolulu • Memphis • Tulsa • Walla Walla • Los Angeles • Philadelphia • Savannah	ESF #3 Action Officer Mission Manager Mission Specialist LM Contract Specialist	Prime Power Liaison Mission Liaison QA (2) <i>Mission Specialist (Night)</i> <i>LM (Night)</i>
Debris	• Louisville • Fort Worth • New Orleans • Sacramento • Portland • Mobile (2) • Baltimore	ESF 3 Action Officer Mission Manager Mission Specialist Resident Engineer(RE) (2) Office Engineer (2)	<i>QA Team Leader (2)</i> <i>RE (2)</i> <i>NEPA Compliance Manager</i> <i>Environmental Engineer</i> <i>Database Manager</i>
Temporary Housing	• Huntington • New York • Omaha • Savannah • St. Paul • Seattle	ESF #3 Action Officer Mission Manager Mission Specialist Contract Specialist LM - Receiving QA Site Engineer - Design Electrical Engineer Environmental Engineer	<i>Cost Estimator</i> <i>Resident Engineer (2))</i> <i>Data Base Manager</i> <i>QA Team Leader (2)</i> <i>RE (2)</i> <i>NEPA Compliance Manager</i> <i>LM (Night Shift))</i>
Temporary Roofing	• Jacksonville • Nashville • St. Louis	ESF #3 Action Officer Mission Manager Mission Specialist Contract Specialist LM - Receiving QA	<i>Resident Engineer (2)</i> <i>Database Manager</i> <i>QA Team Leader (2)</i> <i>RE (2)</i> <i>LM (Night)</i>
Structural Safety Assessment	• Buffalo • Sacramento • Alaska • Seattle	ESF #3 Action Officer Mission Manager Mission Specialist	ATC-20 Training Officer Inspection Team Leader Inspection Team Leader (4)

Figure 5: U.S. Army Corps of Engineers Mission Planning and Response Teams.³⁶

249th Engineer Battalion (Prime Power)

Another USACE asset to support ESF #3 is the 249th Engineer Battalion (EN BN) (Prime Power). The 249th EN BN, headquartered at Fort Belvoir, Virginia, has the capability to generate and distribute medium voltage electrical power in support of warfighting and disaster relief operations.³⁷ This is the only prime power unit in the

³⁶ U.S. Army Corps of Engineers, *ESF #3 Field Guide*, 5-3. The Command and General Staff College Copyrights Coordinator granted copyright reprint permissions for this figure on March 4, 2009.

³⁷ *Ibid.*, C-11.

Army and the only Army unit under the command of the Chief of Engineers.³⁸ The 249th EN BN is able to provide advice and technical assistance in all aspects of electrical power and distribution systems including assessment, inspection, and production. However, availability of support is determined after fulfilling warfighting requirements.³⁹

The 249th EN BN is a strategic level asset that should be used only when contract support is not available or as augmentation to other assets. They provide critical pre-installation inspections (PIIs) necessary to determine requirements before contracting or installing temporary power. Prime Power may carry the initial burden of PIIs, but they are relieved in place as contract support becomes available.⁴⁰

ENGLink

To track its activities during operation contingency planning and response, USACE employs the ENGLink system. ENGLink is USACE's web based automated information system that tracks commodities (e.g. water, ice, Meals Ready to Eat (MREs)), mission status, team member status, manages deployments, and enables reporting at all levels. ENGLink provides real-time access to essential information for deployed personnel. The system is a standardized method for gathering and disseminating information from the site of an emergency operation and within the other elements of the responding organization to the supporting and higher level command.

³⁸ GlobalSecurity.org, "249th Engineer Battalion (Prime Power) 'Black Lions'," *Military*. <http://www.globalsecurity.org/military/agency/army/249eng.htm> (accessed December 9, 2008).

³⁹ U.S. Army Corps of Engineers, *ESF #3 Field Guide*. (Washington D.C., June 2006), 3-23.

⁴⁰ U.S. Army Corps of Engineers, *249th Engineer Battalion Mission*, U.S. Army Corps of Engineers. <http://www.usace.army.mil/249EN/Pages/Mission.aspx> (accessed January 27, 2009).

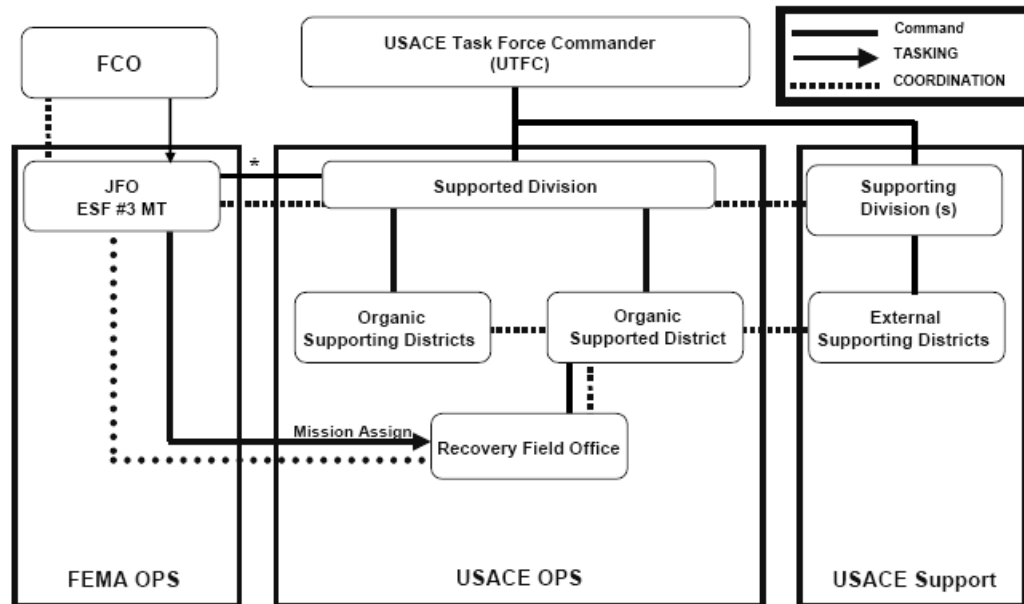
ENGLink enables collection, analysis, forecasting and reporting tasks to develop the decision maker's situational awareness and understanding and perform command and control functions.⁴¹

USACE Response

In the in event of a disaster, the Chief of Engineers assigns the Director of Civil Works as the USACE Task Force Commander (UTFC). The UTFC is responsible to manage support to DHS/FEMA operations and allocates resources to the supported USACE Division Command. The UTFC designates the Supported Division Commander responsible for executing USACE missions in support of FEMA operations.⁴² Figure 6 illustrates the relationships.

⁴¹ U.S. Army Corps of Engineers, "Corps of Engineers Emergency Response Portal," U.S. Army Corps of Engineers. <https://eportal.usace.army.mil/sites/ENGLink/Interactive/default.aspx> (accessed January 2009, 30).

⁴² U.S. Army Corps of Engineers, *All Hazards OPORD 2006*, 4.



* Supported Division Commander may further attach ESF #3 MT to Recovery Field Office Commander.

Figure 6: Command and Control of USACE Disaster Operations.⁴³

Through the USACE Operations Center (UOC) and in coordination with the USACE Chief of Homeland Security Office, as required the UTFC establishes ESF #3 TLs, ATLs, and Subject Matter Experts (SMEs) to deploy to national and regional DHS/FEMA operation centers to coordinate ESF #3 efforts. Supported operation centers may include the National Operations Center (NOC), National Response Coordination Center (NRCC), Regional Response Coordination Center (RRCC), Emergency Response Team-Advance Element (ERT-A), Emergency Response Team-National (ERT-N) and the Joint Field Office (JFO).⁴⁴ The ESF #3 Cell at the RRCC, ERT-A, and JFO and all

⁴³ U.S. Army Corps of Engineers, *ESF #3 Field Guide*, 1-18. The Command and General Staff College Copyrights Coordinator granted copyright reprint permissions for this figure on March 4, 2009.

⁴⁴Ibid, 1-4.

USACE elements are DS (in direct support) of FEMA (the lead agency) and under operational control (OPCON) to the responding organization.⁴⁵

The Supported Division is the main effort for the event response and as necessary, all other USACE assets assist. The Supported Division designates a Division Forward Commander (DFC) charged with providing immediate on-site coordination.⁴⁶ FEMA may also submit a mission assignment (MA) to USACE for the establishment of a recovery field office (RFO) to execute FEMA missions.⁴⁷

The Supported Division performs mission analysis based on preliminary damage assessments, develops a concept of operations, and establishes requirements for execution, support, as well as command and control. The concept utilizes internal assets, PRTs, and other trained personnel prior to requesting additional USACE resources from the UOC. The Supported Division Commander ensures the affected district is ready to execute and identifies a back-up District for mission execution in case another District is impacted. The Supported Division Commander reviews and approves the District's plan and subsequently briefs the overall concept of operations to the UTFC.⁴⁸

Supporting the ESF #3 MT, the TL/ATL serves as the USACE representative in the process of negotiation, coordination, and acceptance of FEMA missions on behalf and in conjunction with the supported element. The ESF #3 MT is OPCON to the Federal

⁴⁵ U.S. Army Corps of Engineers, *All Hazards OPORD 2006*, 4.

⁴⁶ Ibid.

⁴⁷ An RFO is usually established when missions are of significant size and of long duration, requiring continuous coordination with the FCO and state.

⁴⁸ U.S. Army Corps of Engineers, *All Hazards OPORD*, 4.

Coordinating Officer (FCO) and provides oversight for all FEMA assigned missions.

Through taskings, the ESF #3 MT assigns missions to the major subordinate command (MSC), District, or RFO.⁴⁹

ESF #3 Missions

While helping communities recover after a disaster is important, preparation and planning before a disaster reduce the potential impact. ESF #3 mitigation services include infrastructure risk and vulnerability assessments and inspection of mass care facilities. Other pre-incident ESF #3 missions include activities of prepositioning teams including assessment teams and contractors, and deploying advance support elements. Outside of ESF #3, USACE may also provide advice on urban search and rescue operations.⁵⁰

Once the immediate danger of a hurricane, flash flood, or other disaster has passed, the work begins to provide basic needs such as safe access routes, electricity, drinking water, and sanitation. ESF #3 offers the additional support for state and local governments to meet these challenges in the wake of a major incident. Typical post-incident ESF #3 assistance provided by USACE is related to public works and engineering, but also harnesses the contracting capability of USACE. Activities include technical assistance including performing damage/needs assessments; emergency infrastructure assessments including damaged streets, bridges, ports, waterways, airfields

⁴⁹ U.S. Army Corps of Engineers, *ESF #3 Field Guide*, 2-2.

⁵⁰ U.S. Army Corps of Engineers, *ESF #3 Field Guide*, chap. 3.

and other facilities necessary for emergency access; and other technical assistance including private residential structures and commercial structures.

Other support includes providing emergency power to critical public facilities; emergency debris clearance, removal, and disposal from public property; the restoration of critical public facilities including the temporary restoration of water supplies and wastewater treatment systems; and the emergency demolition or stabilization of damaged structures and facilities. Under ESF #3, USACE provides emergency contracting and contract management to provide critical items and services such as potable water and ice to support public health and safety.⁵¹

For example in 2005, USACE responded to Hurricanes Dennis, Katrina, Rita, and Wilma, illustrating the type of emergency support provided the Nation under ESF #3. During these incidents, USACE installed 193,000 temporary roofs, delivered 103 million liters of water and 232 million pounds of ice, inspected 2,406 generators and installed 914 generators, and removed a total of 38,967,195 cubic yards of debris.⁵²

Upon completion of the immediate response, the focus shifts towards assisting communities with long-term recovery and repairs to public infrastructure. Efforts then shift to FEMA as the primary ESF #3 agency for recovery. FEMA manages the recovery

⁵¹ U.S. Department of Homeland Security, *National Response Framework*, 3-4.

⁵² U.S. Army Corps of Engineers, *“Responding to Emergencies: The Role of the U.S. Army Corps of Engineers in Support of the Nation.”*

programs that help repair, replace, or relocate damaged or destroyed facilities and infrastructure.⁵³

ESF #3 Issues

Through the process of interviews, analyzing historical incidents, and recent operations, the author identified issues that may hamper the efficiency of USACE to provide ESF #3 response. These areas include commodity management, commodity visibility, other USACE missions, the ad hoc nature of the response, lead-time for response, limited organic assets, competing priorities, and overlapping boundaries.

The management of commodities includes getting the required resources, ice, water, and MREs, to the impacted areas for distributions. This involves forecasting requirements, activating contracts, tracking movement, and monitoring the usage. A common occurrence during high visibility disasters, such as Hurricane Katrina, is the contribution of donations. Nongovernmental aid is crucial to providing needed relief to ease suffering, but may create problems. A lesson learned from Hurricane Katrina, “the Nation did not always make effective use of these contributions because we had not effectively planned for integrating them in the overall response effort.”⁵⁴

For example, Wal-Mart contributed over 24 truckloads of food, water, and ice during hurricanes Ike and Gustav.⁵⁵ However, USACE is not always aware of or have

⁵³ U.S. Army Corps of Engineers, *ESF #3 Field Guide*, 1-9.

⁵⁴ U.S. Government, *The Federal Response to Hurricane Katrina: Lessons Learned*. After Action Report (Washington, D.C.: G.P.O., 2006), 63.

⁵⁵ Wal-Mart, *Hurricane Relief*, Wal-Mart. <http://walmartstores.com/CommunityGiving/244.aspx> (accessed January 31, 2009).

visibility on these commodities until they show up onsite. These commodities are not entered or tracked in the ENGLink database because the responsible agent is unaware of their existence. Therefore, these donations are usually unknown to the ESF #3 responders until they arrive for distribution. Consequently, truckloads of items show up at the disaster sites that were not in the original forecast and excess accumulates.⁵⁶ Additionally, donated items may flow into the federal agency, the state, or directly to the local level, making resource tracking even more difficult.⁵⁷ Duplication of effort and unnecessary use of resources may result from the inability to track and control distribution of donations. Aside from donations, other factors may influence tracking commodities.

In Transit Visibility (ITV) of commodities during movement from the point of origin, usually the location of the contractor providing the resource, to the final point of distribution is challenging. Described in the lessons learned from Hurricane Katrina, "...the lack of a real-time asset-tracking system – a necessity for successful 21st Century businesses – left Federal managers in the dark regarding the status of resources once they were shipped."⁵⁸ USACE may activate a contract to provide resources and initially have visibility, but when that truck departs enroute to the required location, awareness may degrade.

⁵⁶ Judson Kneuvean, (Chief, Emergency Operations, Kansas City District U.S. Army Corps of Engineers), interview by author, Kansas City, Missouri, October 17, 2008.

⁵⁷ The Department of the State coordinates donations from international sources. Donations at the federal level are coordinated by FEMA. More information pertaining to volunteers and donations is located in the NRF support annex available at : <http://www.fema.gov/pdf/emergency/nrf/nrf-support-vol.pdf>

⁵⁸ U.S. Government, *The Federal Response to Hurricane Katrina: Lessons Learned*, 56-57.

The hurricane or other disaster event often degrades communications in the region, making resource tracking difficult. Additionally, plans may change during the course of resource movement. The logistics structures are not always in place before commodities are ordered and pushed forward.⁵⁹ The human factor is involved. Drivers do not always know who has the authority to send resources forward from staging areas and the distribution points are still in a state of flux; as a result, the resources are not in the tracked locations.⁶⁰ Visibility of resources enables proper resource allocation and requisition. A lack of situational awareness may result in excess requisitions or a lag in providing desperately needed relief. In addition to resources and resource visibility, personnel play an important role in the system.

The personnel that make up the majority of the ESF #3 teams, including ESF #3 MTs and PRTs, are volunteers dual-hatted with other primary duties. All activities including training, exercises, and actual deployments limit their ability to complete other assigned tasks. Although the nature of the ESF #3 mission may outweigh other priorities in the event of a disaster, the absence may tax the organizations and limit efficiency.

Similar to the challenge of being dual-hatted is the hardship of not having dedicated teams within USACE. USACE does employ personnel with the sole responsibility of preparing and responding to disasters. However, the majority of the

⁵⁹ U.S. Army Corps of Engineers, "Corps of Engineers Emergency Response Portal," *Commodities Planning: Distribution Point Brief*, U.S. Army Corps of Engineers. <https://portal.usace.army.mil/sites/ENGLink/Commodities/Shared%20Documents/Distribution%20Point%20Brief%2006-7-05.ppt> (accessed February 14, 2009).

⁶⁰ Judson Kneuvean, (Chief, Emergency Operations, Kansas City District U.S. Army Corps of Engineers), interview by author, Kansas City, Missouri, October 17, 2008.

actual effort during the response comes from volunteers outside the emergency management function within the USACE workforce. Despite the training and readiness exercises, this may create an ad hoc nature of response when an incident arises. Therefore, it is not an ideal situation when the first time that a team works together is during an actual disaster. General Victor E. Renuart, Jr., Commander of USNORTHCOM, stated, “The last place in the world to make a new friend is at the scene of a disaster. You have to build a relationship over time. You need to plan together for events that you may have to practice.”⁶¹ Training may help to mitigate this factor and establish relationships. However, it comes at the expense of time, money, conflicting demands - the competition for limited resources.

Organic capabilities within USACE are limited. Generally, USACE contracts the provision of materiel and services to the private sector. The ability of USACE to utilize its contracting capability is a tremendous asset. However, it does have drawbacks. Disasters such as a hurricane affect a large area. The demand for contractor-provided services might increase overnight. This short notice demand may exceed the availability of providers. Resultantly, the cost of services may be extremely high. Advance Contracting Initiatives (ACI) help mitigate this factor.

Without preexisting contracts, USACE may be at the mercy of the market in providing essential services in the event of a disaster. Long lead-times may also result. ACI enables USACE to establish contracts prior to an incident to provide services such as

⁶¹ David H Gurney, "An Interview with Victor E. Renuart, Jr." *Joint Forces Quarterly*, Issue 48, 1st Quarter 2008: 41-43.

commodities, debris removal, or temporary roofing.⁶² These contracts enable USACE to deliver services with less lag between anticipating/recognizing the requirement and the initiation of work. In the case of temporary roofing, ACI shortens the process by eight days through eliminating the time normally required to solicit, advertise, receive bids, evaluate bids, award, and issue the first task order.⁶³ In the task of debris removal, contractors can normally begin work within 24 hours of the incident.⁶⁴ However, these pre-established contracts do not exist in all areas. In these areas, the standard solicitation and acquisition process remains in effect. This lead-time can prevent providing relief for several days.

A lead-time is usually required to provide the required commodities or services. USACE procures the goods and services through a contract with a private entity. This may require coordination 96 to 120 hours in advance to activate contracts, even the pre-established contracts. In the instance of Hurricane Katrina, the demand for ice and water was identified during a long weekend, Labor Day. Without advance notice, it is difficult to bring in workers during a holiday and carry out a contract in a timely manner. Without enough time to put the contracts into motion, a lag in providing essential relief may result.⁶⁵ Additionally, the state's request influences the ability of FEMA, and subsequently USACE, to act. The state's timely request for assistance and the

⁶² U.S. Army Corps of Engineers, *ESF #3 Field Guide* (Washington D.C., June 2006), chap. 3.

⁶³ *Ibid.*, 3-35.

⁶⁴ *Ibid.*, 3-30.

⁶⁵ Judson Kneuvean., (Chief, Emergency Operations, Kansas City District U.S. Army Corps of Engineers), interview by author, Kansas City, Missouri, October 17, 2008.

subsequent action of FEMA issuing USACE a MA, determines the provision of relief and the ability to stem suffering.

ESF #3, however, competes with other priorities within USACE. USACE executes several missions that compete for a finite amount of resources. The execution of duties under Flood Control and Coastal Emergencies (FCCE) may be simultaneous and equal in impact of disaster mitigation. Military Construction (MILCON), in support of restationing forces and the Global War on Terror (GWOT), is an ongoing and critical mission. With the Base Realignment and Closure (BRAC) program, the workload of USACE has increased. For example, the Kansas City District will execute a MILCON budget five times larger than that of 2005. The District executed this increased workload with practically no change or additions in personnel.⁶⁶

In addition, USACE supports the Gulf Region Division (GRD), providing engineering expertise to the Afghanistan and Iraq theaters. However, the personnel that fill these critical GRD positions usually come as temporary volunteers from other Districts. Even USACE's organic capability to provide temporary medium voltage electrical power, the 249th EN BN (Prime Power), is contingent on availability after executing its warfighting mission.⁶⁷ These competing demands may limit the support that USACE can provide. The importance of prioritization becomes apparent.

⁶⁶ Kansas City District, U.S. Army Corps of Engineers. *NWK MILCON Trend Assessment*. FY 09 Placement (Kansas City, Missouri: NWK-PM, 2009).

⁶⁷ U.S. Army Corps of Engineers, *ESF #3 Field Guide*, 3-23.

Another potential issue is the alignment of USACE Divisions and Districts with the FEMA regions and states. Watersheds provide the basis for the division of USACE Divisions and Districts. However, the basis of the ten FEMA regions is state boundaries inclusive to each region.⁶⁸ The two boundaries do not line up.⁶⁹ A significant incident, such as activity within the New Madrid Seismic Zone, could involve over eight states including Missouri, Illinois, Indiana, Kentucky, Tennessee, Mississippi, and Alabama. This area would overlap into five USACE Divisions and four FEMA Regions.⁷⁰ The cross boundary incident necessitates the requirement for increased coordination within each agency and at the national level to enable efficient coordinated response and recovery operations. Figure 7 displays the differences in the boundaries of USACE and FEMA.

⁶⁸ U.S. Department of Homeland Security, *National Response Framework*, 61.

⁶⁹ The boundaries of USACE, following the watersheds, enable its Civil Works, flood control, and water management missions. Altering these boundaries to match FEMA's boundaries would impede its ability to perform those missions. Watersheds spread across multiple states and do not include the entirety of these states. Conversely, FEMA regional boundaries enable the coordination with the state government for the planning and response to incidents. Utilization of USACE boundaries would divide states and inhibit coordination. USACE and FEMA boundaries are set to enable their respective missions, changing these boundaries to coincide would not provide benefit.

⁷⁰ Federal Emergency Management Agency, "Federal Interim Contingency Plan: New Madrid Seismic Zone Catastrophic Earthquake Response Planning Project," Federal *Interim Contingency Plan* (Washington, D.C.: Federal Emergency Management Agency, 2008), 5-9.

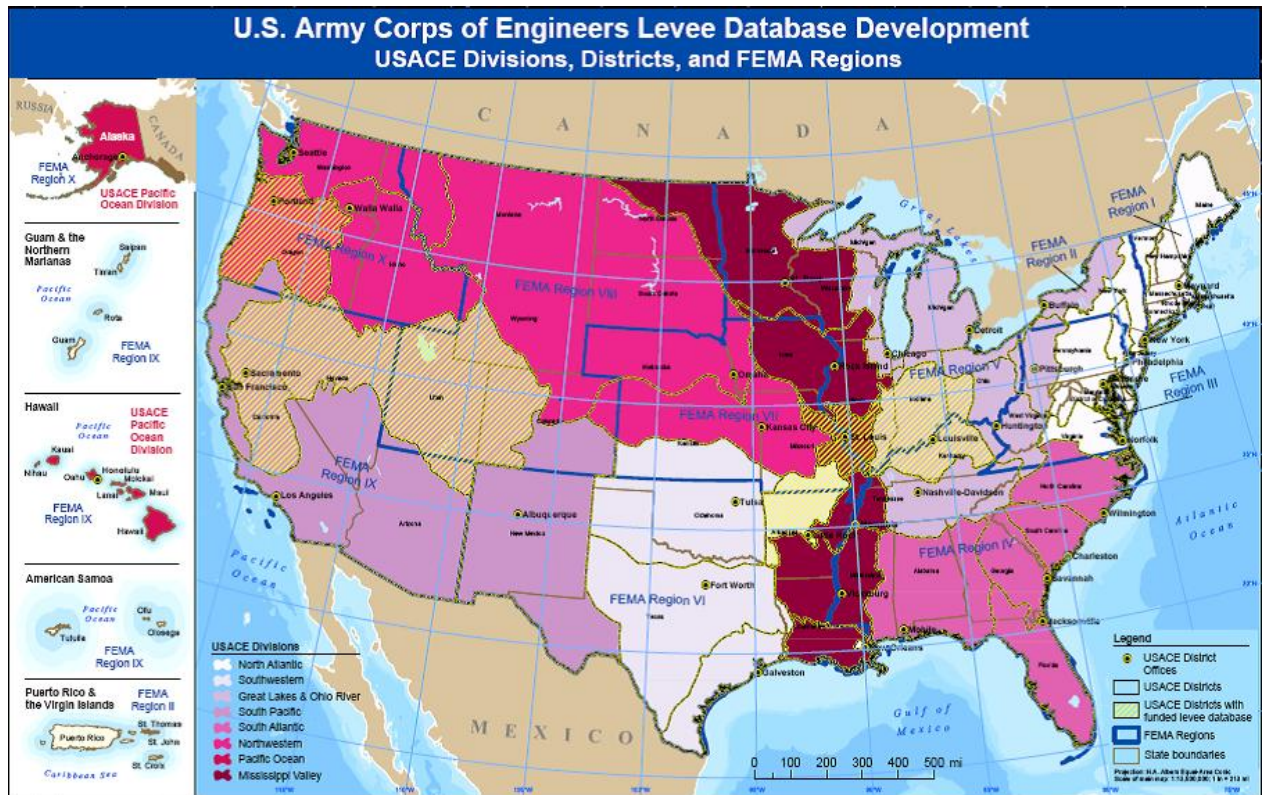


Figure 7: USACE Divisions and FEMA Regional Boundaries.⁷¹

Summary

This chapter outlined the organization, processes, scope, and historical issues within the ESF #3 response. It identified the issues concerning commodity management, commodity visibility, other competing USACE missions, the ad hoc nature of the response, lead-time for response, limited organic assets, and overlapping boundaries.

The final chapter discusses recommendations in reference to these issues.

⁷¹ U.S. Army Corps of Engineers, "U.S. Army Corps of Engineers, Levee Database Development, USACE Divisions, Districts, and FEMA Regions" *National Flood Risk Management Program* www.iwr.usace.army.mil/nfrmp/docs/USACE-FEMA%20Boundaries.pdf (accessed March 2, 2009). The Command and General Staff College Copyrights Coordinator granted copyright reprint permissions for this figure on March 4, 2009.

IV. DEFENSE SUPPORT OF CIVIL AUTHORITIES

“DSCA is like an insurance policy. Nobody wants to pay the bill, but when something happens, everyone wants to file a claim.”⁷²

– USARNORTH Engineer

Through its evolution, the US Government and supporting agencies have undergone several changes in the way that it supports disaster relief operations. In the past, FEMA coordinated the federal response utilizing the Federal Response Plan (FRP). The FRP divided the disaster into 12 Emergency Support Functions (ESF).⁷³ FEMA still coordinates the effort as an agent of the Department of Homeland Security (DHS), but this effort now supports the National Response Framework (NRF) and the 15 defined ESFs.⁷⁴ Likewise, Military Assistance to Civil Authorities (MACA) became Defense Support of Civil Authorities (DSCA) – “civil support provided under the auspices of the National Response Plan” (now the NRF).⁷⁵ This transformation in policy affected doctrine and force structure as well. These changes also shaped the supporting Combat Command (COCOM) and subordinate organizations, namely USNORTHCOM and USARNORTH.

⁷² Christopher Doniec, MAJ, conference call interview by author, February 20, 2009.

⁷³ Terry R. Youngbluth, "A Post-Hurricane Andrew Review of Trends in Department of Defense." *USAWC strategy research project* (Carlisle Barracks, PA: U.S. Army War College, 1996), 2.

⁷⁴ U.S. Department of Homeland Security, *National Response Framework*, Emergency Support Function Annexes Introduction -vi.

⁷⁵ U.S. Department of Defense, *Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms* (Virginia: United States Joint Forces Command Joint Warfighting Center, 2007), 150.

USNORTHCOM

Following the terrorist attacks of 9/11, the DoD initiated steps to reorganize and establish a COCOM at Peterson Air Force Base, Colorado, with the primary mission of defending the U.S. homeland.⁷⁶ On October 1, 2002, USNORTHCOM assumed responsibility of the homeland defense and civil support missions in their area of responsibility. Duties transferred from subordinate organizations including Joint Forces Headquarters Homeland Security, Joint Task Force-Civil Support, Joint Task Force 6, and the Joint Regional Medical Planning Program, from US Joint Forces Command (USJFCOM) to USNORTHCOM.⁷⁷ This organized the responsibilities under a single unified command with a broadened mission. “When directed, USNORTHCOM conducts DSCA operations within the operational area to support civil authorities during special events and to mitigate the effects of natural or man-made disasters.”⁷⁸ Following the restructuring of USNORTHCOM, USARNORTH also reorganized.

USARNORTH

As a part of the Army’s transformation, effective October 16, 2006 Fifth Army became USARNORTH. A Lieutenant General commands this organization, headquartered at Fort Sam Houston, Texas. This order also designated USARNORTH as

⁷⁶ U.S. Northern Command, Chronology of NORTHCOM Events," *Protecting and Defending America 2002-2008*, U.S. Northern Command. http://www.northcom.mil/About/history_education/USNC%20Key%20Event%20Chron%202002-2008.pdf (accessed February 14, 2009).

⁷⁷ U.S. Northern Command, *About USNORTHCOM: U.S. Northern Command History*, U.S. Northern Command http://www.northcom.mil/About/history_education/history.html (accessed February 17, 2009).

⁷⁸ U.S. Northern Command, Execution Order " *Standing Execution Order for Defense Support of Civil Authorities Operations in Support of Other Federal Agencies in the USNORTHCOM Operational Area* (Commander U.S. Northern Command, 2008).

the operational-level Army Force designated as the Army Service Component Command (ASCC) of USNORTHCOM.⁷⁹

In addition to the ASCC, USARNORTH was designated as the Joint Forces Land Component Command (JFLCC) with two subordinate standing Joint Task Forces (JTFs): JTF-Civil Support located at Fort Monroe, Virginia and JTF-North headquartered at Fort Bliss, Texas.⁸⁰ With augmentation, this gives USARNORTH the capability to command and control deployed forces as the JFLCC or multiple JTFs. USARNORTH can utilize its subordinate standing JTFs, or use organic capabilities to stand up two JTFs with two-star commanders.⁸¹

USARNORTH's mission is similar to its parent organization USNORTHCOM. "USARNORTH conducts homeland defense and civil support operations, and Theater Security Cooperation (TSC) activities, as the ASCC to USNORTHCOM in order to protect the American people and their way of life. On order, USARNORTH commands and controls deployed forces as a JTF or JFLCC." ⁸²

⁷⁹ U.S. Department of the Army, "Designation of United States Army North as an Army Service Component Command," *General Order Number 17* (Washington, D.C.: Headquarters, Department of the Army, December 16, 2006).

⁸⁰ Keith Krueger, LTC, MAJ Christopher Doniec, MAJ Dave Foster, and Ronald Catchings, conference call interview by author, February 20, 2009.

⁸¹ Ibid.

⁸² U.S. Army North, *Welcome to USARNORTH*, U.S. Army North. http://www.5tharmy.army.mil/about_us.htm (accessed February 18, 2009).

While USARNORTH has 538 Soldiers, civilians and contractors, it however, has no assigned forces.^{83, 84} A situation, such as a natural disaster or terrorist attack, typically dictates the assignment of forces to USARNORTH. Among these forces are engineers from USACE, tasked to augment the organic engineer staff of USARNORTH.

USARNORTH Engineer Staff

With a quick examination of the engineer staff in USARNORTH, it is obvious that its structure is lean. The organization has nine engineers when fully manned.⁸⁵ The majority of the engineer staff of USARNORTH resides in the engineer cell of G3 Operations. A chief heads this section, with two operations officers, and two cartographers. Additionally, the G3 Future Operations (FUOPS) has an engineer operations officer. The G5 Plans also has an engineer plans officer and a cartographer.⁸⁶

With this scarcity of assigned personnel, it is impossible to run 24-hour operations for extended operations. Moreover, activation of USARNORTH's two TFs/JTFs, in response to incidents of broad scope and devastation, triples the staff requirements.⁸⁷

⁸³ Amanda Merritt Cumti, "U.S. Army North/5th Army: Building Relationships to Defend the Homeland and Meet Emerging Regional Challenges," *National Security Watch* (February 15, 2007: NSW 07-1), 2.

⁸⁴ Joint Task Force-Civil Support (JTF-CS) and the current chemical, biological, nuclear, and high-yield explosive (CBRNE) Consequence Management Reaction Force (CCMRF), 1st Brigade Combat Team (BCT), 3rd Infantry Division are under operational control (OPCON), aligned to support DSCA operations, but not assigned directly to USARNORTH.

⁸⁵ Currently, vacancies exist within the authorized positions. These vacancies do not prevent normal day-to-day operations, but in the event of a medium or large-scale domestic incident, they exacerbate the present manning issues and inhibit the ability of ARNORTH to expand operations, operating additional command posts.

⁸⁶ U.S. Army North, *ARNORTH Engineer Staff Brief* (Fort Sam Houston, Texas: USARNORTH, February 20, 2009), 19.

⁸⁷ *Ibid.*, 4.

USARNORTH provides a scaled response determined by the magnitude of the event. A small-scaled event of limited size and scope – Tier 1 – normally requires the action of the Defense Coordinating Officer (DCO) and elements of the staff.⁸⁸ A larger medium-scaled event – Tier 2- may demand the deployment of a task force (TF) or JTF. In this case, USARNORTH deploys its Operational Command Post (OCP) from Fort Sam Houston, the Main Command Post (MCP) location, to a staging area or area vicinity of the impacted areas in order to command and control the DoD DSCA response.⁸⁹ An incident requiring a large-scale response – Tier 3- USARNORTH deploys an additional OCP, again in the command and control role of a JTF. With a Tier 3 event, USARNORTH may have three command posts functioning simultaneously.^{90, 91} The USARNORTH Engineer requests engineer support upon determination that an event

⁸⁸ U.S. Army Corps of Engineers, "USACE Engineer Cell Augmentation to NORTHCOM JTF's," *U.S. Army Corps of Engineers*, 6.

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ The Tier I event is usually limited to small-scale localized incidents. For example, tornados destroy a community. The damage exceeds the local and state-level response capabilities, however, because of its limited size, requires minimal federal involvement. In this case, the DCO, a senior military officer, Colonel or equivalent, works directly with the FCO coordinating the response efforts. The Tier II event is larger. For example, a category five hurricane makes landfall on Louisiana and Texas. The event's magnitude and complexity warrant a larger response force with correspondingly increased command and control requirements. In this case, USNORTHCOM establishes a JTF, a headquarters with a General Officer and corresponding capabilities. The Tier III events are reserved for multiple complex incidents having a Continental United States (CONUS) wide impact or those threatening national security. For example, category five hurricanes make landfall on the Gulf Coast, meanwhile terrorists release contagious biological agents on the East Coast. These events require USNORTHCOM to apply a variety of Homeland Defense and Civil Support assets. This may include the establishment of the JFLCC, a Lieutenant General or equivalent command and corresponding capabilities, to command and control operations of subordinate commands - multiple JTFs. For further definition see COL Thomas J. Langowski's monograph, "Defense Support to Civil Authorities," pages 39-41.

requiring USARNORTH assistance has taken place or is imminent. Without augmentation, the ability of the organic engineer staff is limited to less than 96 hours.⁹²

In 2006, responding to the identified insufficiency of organic engineer staff, Headquarters USACE designated its Divisions to support engineer cell augmentation of USNORTHCOM and its JTFs during incidents or events requiring DSCA response. The Chief of Engineers intended to eliminate the unplanned nature of engineer augmentation characterized during Hurricanes Katrina and Rita by establishing habitual relationships with supported staffs.⁹³ These changes now place USACE in both the ESF #3 role and the DSCA role under the NRF and Stafford Act.

Recognizing that this fix was temporary, USARNORTH began exploring solutions for a more permanent solution. Among these solutions are the formulation of a Joint Manning Document (JMD) utilized by USARNORTH and USNORTHCOM/JFCOM to request engineer staff support as well as changes to the Modified Table of Organization and Equipment (MTOE).⁹⁴ The request is still pending, but if successful, it would enable the USARNORTH engineers to operate all command posts without external augmentation.⁹⁵ However, the results of the requests may not be realized for

⁹² Keith Krueger, LTC, MAJ Christopher Doniec, MAJ Dave Foster, and Ronald Catchings, conference call interview by author, February 20, 2009.

⁹³ U.S. Army Corps of Engineers. "USACE Engineer Cell Augmentation to NORTHCOM JTF's." *U.S. Army Corps of Engineers*, 2-3.

⁹⁴ Joint Manning Document – A manning document of unfunded temporary duty positions constructed for or by a supported COCOM that identifies the specific Individual Augmentation (AI) positions to support an organization during contingency operations. Reference: CJCSI 1301.01C, Individual Augmentation Procedures, dated January 2004 (current as of December 16, 2008).

⁹⁵ U.S. Army North, *ARNORTH Engineer Staff Brief*, 26-28.

several years. If approved, the MTOE change will take effect 2012.⁹⁶ Still, the positions alone do not provide additional personnel until filled.

The JMD is the basis to request augmentation - the Request for Forces (RFF). In a no-notice event, once initiated the RFF process would enable forces to arrive around 14 days after the request is processed. This solution still leaves a gap of several days between the organic capabilities of USARNORTH engineers and the arrival of augmentation.⁹⁷ This process is too time-consuming to provide a workable solution in a no-notice event. However, in an event with several days notice this may be feasible. Still the proficiency of the augmentees, in relation to DSCA and engineer operations, is a gamble. Without significant preparation including pre-screening, identifying, and training potential augmentees, the supported staff may not get the support that they need.

Regardless of the solution implemented, a gap remains. A bridge is required now, and remains so until the realization of the future force with sufficient manned positions. Currently USACE provides that bridge.

USACE DSCA Issues

When Hurricanes Katrina and Rita hit the Gulf Coast region in 2005, the transition of USARNORTH was in its infancy. Although USARNORTH was in the process of standing up, it did not reach full operating capability until 2006.⁹⁸ Since that time, preparedness exercises such as Vigilant Shield and Ardent Sentry have tested the

⁹⁶ Ibid.

⁹⁷ Ibid., 24.

⁹⁸ ArmyTimes, "News Briefs," *ArmyTimes*, October 17, 2005.

capabilities and assisted in developing the organizations' response to hurricanes and other national disasters.⁹⁹ Real world events such as Hurricane Gustav also test the response and provide opportunity to examine areas for potential improvement. Through this continued testing and evaluation, the organization attempts to improve its abilities to respond. The following section addresses issues identified during the past three years of DSCA augmentation to USNORTHCOM and ARNORTH.

A prominent issue for USACE is that the DSCA augmentation takes personnel from other assigned duties. In instances requiring augmentation for Lieutenant Colonel and higher positions, the leadership including the Deputy District Engineer, District Engineer, and Division Engineer may have to fill the requested positions.¹⁰⁰ This limits the ability of the USACE leadership to respond to other operations. This is an inconsiderable issue in times of stability, but during instances with multiple disasters, other priorities may take higher precedence. For example, concurrent flood fight missions in the USACE Division/District or adjacent Division/District's area may outweigh the requirement for DSCA support. Priorities change as incidents grow larger.¹⁰¹

⁹⁹ Keith Krueger, LTC, MAJ Christopher Doniec, MAJ Dave Foster, and Ronald Catchings, conference call interview by author, February 20, 2009.

¹⁰⁰ Ibid.

¹⁰¹ The Chief of Engineers assigns the Director of Civil Works as the USACE Task Force Commander (UTFC). The UTFC is responsible for managing support to DHS/FEMA operations, allocating resources, and establishing the supported/supporting Division relationships. USACE established this structure to manage missions and resources above the Division level. Below this level, Divisions may perform the same function managing its subordinate Districts. See Figure 6.

DSCA support to USNORTHCOM and USARNORTH often competes with the Title 10 and civilian engineers' other priorities. As mentioned in the ESF #3 issues, demands for supporting the GWOT with support to the Gulf Region District (GRD) are high priority. Similarly, Flood Control and Coastal Emergencies (FCCE), MILCON in support of BRAC and other initiatives, as well as Civil Works projects, all compete for finite resources. For example, Task Force Hope is currently executing a \$14.3 billion budget for Hurricane and Storm Damage Risk Reduction System, repairing and rebuilding infrastructure in New Orleans.¹⁰² Duties such as this are also high in priority and performance reflects on the Commander. DSCA responsibilities do not mitigate this factor.

Further exacerbating the problem, the turnover among USACE personnel challenges the viability of their use as a solution to fill USNORTHCOM/ARNORTH shortages. Typically, assignments for active duty military personnel to USACE are two years or less. The Advanced Civil Schooling assignment utilization is 24 months.¹⁰³ The time required to complete required DSCA training, develop a relationship with the supported staff, and develop proficiency is approximately a year.¹⁰⁴ This leaves only one year, or a single hurricane season of utilization, before the augmentee training cycle must begin again. USARNORTH would prefer a one-year training period with two years of

¹⁰² U.S. Army Corps of Engineers, "Greater New Orleans Hurricane and Storm Damage Risk Reduction: Facts and Figures." *USACE: Team New Orleans*. December 1, 2008. <http://www.mvn.usace.army.mil/hps2/pdf/FactsandFiguresWEB2008.pdf> (accessed February 21, 2009).

¹⁰³ U.S. Department of the Army, *Army Regulation 621-1: The Training of Military Personnel at Civilian Institutions* (Washington, D.C.: Headquarters, Department of the Army, 2007), 2-18.

¹⁰⁴ U.S. Army North, *ARNORTH Engineer Staff Brief*, 15.

utilization for its augmentees.¹⁰⁵ However, the USACE personnel assignment policy does not support this model.

In addition to personnel turn over, timing affects the ability of USACE to provide support. The official Atlantic hurricane season begins in June and extends through November each year. The peak hurricane threat for the US exists from mid-August through October.¹⁰⁶ The hurricane season runs concurrent with another busy time within USACE, the end of the fiscal year. For example, in 2006, half of the \$138 billion spent by the government in the final quarter of the fiscal year occurred in the final month. “The way budgeting is done, there is a ‘use-it-or-lose-it’ mentality.”¹⁰⁷ USACE is often trying to award contracts at this time of the year for its customers. In addition, other administrative demands peak the workload, including fiscal year accounting requirements and the annual rating of personnel under the National Personnel Security System (NSPS).¹⁰⁸

In the DSCA response, funding is the enabler. This process of training and developing proficiency through readiness exercises requires funding. Funding for both training and real world deployments is a prerequisite to movement. USACE requires USARNORTH to transfer funds in order to deploy USACE assets. In forecasted training,

¹⁰⁵ Ibid, 23.

¹⁰⁶ National Oceanic and Atmospheric Administration, *Hurricanes...Unleashing Nature's Fury*. A Preparedness Guide (U.S. Department of Commerce, 2007), 5.

¹⁰⁷ Elise Castelli, "Bracing for year-end buying spree ." *FEDERALTIMES.com*. September 03, 2007. <http://www.federaltimes.com/index.php?S=3705017> (accessed February 21, 2009).

¹⁰⁸ U.S. Department of Defense, *National Security Personnel System Performance Management Milestones for Spiral 1.2J Organizations* (Washington, D.C.: DoD, 2008).

this may have little impact. However, in the event of an actual disaster, reimbursement may have to follow when the situation permits.¹⁰⁹

Another issue that USACE augmentees face is the communications infrastructure. A limited number of computers are available from USARNORTH to support the requirements resulting from the expansion from one MCP to two additional OCPs. The computers of USACE augmentee personnel do not interface with USARNORTH systems. Even if the augmentees provided their own computers, they cannot get on the network. Even the process of getting permissions for the augmentees, access to necessary applications and information sharing websites, is time consuming.¹¹⁰ The rapid expansion of the communications infrastructure to accommodate augmentation is a burdensome endeavor, but necessary to enable operations and situational awareness.

The USACE role, augmenting the JFLCC or JTF engineer staff, is sometimes confused. The role of USACE is commonly associated with the ESF #3 function and flood fight roles, but not so much in the DSCA role. In exercises and operations, outside agencies sometime confuse the roles. They see the Corps of Engineers patch and immediately assume ESF #3.¹¹¹ However, in the USACE DSCA role, augmenting USNORTHCOM or USARNORTH with engineer staff, they plan the use of Title 10 forces for executing Mission Assignments (MAs). The forces may potentially provide

¹⁰⁹ Seattle District, U.S. Army Corps of Engineers, *Hurricane Gustav AAR*. After Action Report of the USACE Deployment to Hurricane Gustav (Seattle, Washington: USACE, 2008).

¹¹⁰ Ibid.

¹¹¹ Keith Krueger, LTC, MAJ Christopher Doniec, MAJ Dave Foster, and Ronald Catchings, conference call interview by author, February 20, 2009.

support to any of the 15 ESFs. The DSCA engineer planners do not confine planning to ESF #3 support, but focus on all potential engineer missions.¹¹²

The potential engineer missions include sustainment, assured mobility, counter mobility, and general engineering. Sustainment tasks include preparing troop bed down sites and site preparation for temporary shelters. Assured mobility includes route clearance, infrastructure repair, tactical bridging, search and rescue support, and fire fighting. Counter mobility involves the establishment of traffic control points, and general engineering support includes geospatial support and infrastructure reconnaissance.¹¹³ In addition to situational awareness, understanding of roles and potential missions, establishing a common language is critical.

A common language throughout emergency response is necessary to gain situational awareness and understanding. However, discrepancies exist. For example, the use of the Homeland Security Information Network (HSIN) version of infrastructure assessment does not interface with the Army model and USARNORTH format.¹¹⁴ The Army utilizes a commonly accepted SWEAT format (e.g. Sewer, Water, Electricity, Academics, and Trash).¹¹⁵ This format is part of the curriculum instructed at the U.S.

¹¹² U.S. Army North, *ARNORTH Engineer Staff Brief*, 10.

¹¹³ Ibid.

¹¹⁴ U.S. Army Corps of Engineers, *Engineer After Action Review: 2007 Hurricane Preparedness Exercise and Ardent Sentry*. After Action Review (Washington, D.C.: U.S. Army Corps of Engineers, 2007), 43.

¹¹⁵ This format does not match the HSIN SWEAT format: Sewer, Water, Energy, Accessibility, and Telecom analysis.

Army Engineer School, and doctrine exercised in theaters worldwide.¹¹⁶ However, this doctrine disagrees with that of the supported elements in DSCA.

Summary

This chapter outlined the evolution of the COCOM and ASCC, USNORTHCOM and USARNORTH respectively. It outlined the engineer capabilities, shortfalls, and the resultant fixes. This situation places USACE now in the role of ESF #3 and DSCA in responding to requests for assistance under the NRF and Stafford Act. Through this evolution, USACE has developed a relationship with its supporting organizations.

Through preparedness exercises, training, and real world events, problems have surfaced and solutions implemented or identified. Among these issues, include competing USACE missions and requirements, timing of events, funding, communications infrastructure and accessibility, situational awareness, and a common language. The next chapter addresses these issues under recommendations and conclusions and offers potential solutions.

¹¹⁶ U.S. Army Engineer School, *The SWEAT/IR Book: Infrastructure Reconnaissance* (Fort Leonard Wood, Missouri: U.S. Army Engineer School, 2006), 5.

V. RECOMMENDATIONS AND CONCLUSION

“He who rejects change is the architect of decay. The only human institution which rejects progress is the cemetery.”¹¹⁷

– Harold Wilson

Recommendations for ESF #3

Donations have some bearing on the ability to effectively manage commodities such as bottled water and ice. Donations from outside the United States are coordinated through one centralized point, the Department of the State. However, within the United States, the government does not control donations in the same manner since they may enter at the federal, state, or local level. This may prohibit the accurate requisition of resources and lead to excess stockpiles of commodities, wasted resources, and unnecessary effort. Complete avoidance of this problem is impossible. However, some actions can lessen this from happening.

Coordination and communication with organizations and businesses, such as Wal-Mart, that routinely donate resources may increase situational awareness. A centralized coordinator for donations at the state level and communications with federal level through FEMA would enable increased situational awareness. The lessons learned from Hurricane Katrina capture this issue.

The Federal response should better integrate the contributions of volunteers and nongovernmental organizations (NGOs) into the broader national effort. This integration would best be achieved at the state and local levels prior to future incidents. In particular, state and local governments must engage NGOs in the

¹¹⁷ Harold Wilson, speech to the Consultative Assembly of the Council of Europe, Strasbourg, France, January 23, 1967.

planning process, credential their personnel, and provide them the necessary resource to support their involvement in a joint response.¹¹⁸

This would provide commodity managers an idea of what to expect from sources outside their span of control and adjust requisitions as necessary. Situational awareness could also improve through tracking measures inside the ESF #3 span of control.

After the activation of contracts to provide commodities such as ice, water, and MREs in support of ESF #3, tracking is important to enable timely distribution and mitigate suffering. The tracking of commodities from the contractor's origin to the point of distribution would improve with the application of technology. Off-the-shelf solutions exist to provide near instantaneous location of resources. One of these solutions is real time Global Positioning Sensor (GPS) tracking.

The implementation of a GPS tracking system would enable responders to know where the resources are with little effort. One such system involves the use of a satellite tracker and messenger. The satellite tracker messenger is a powerful, low priced satellite-tracking device.¹¹⁹ It uses satellite-to-satellite transmissions. The device receives GPS location data and transmits the data backup to a satellite. The unit works where cell phones do not. The contracts that procure the water, ice, and MREs could easily add the requirement to incorporate this tracking. This would enable situational

¹¹⁸ U.S. Government 2006, *The Federal Response to Hurricane Katrina: Lessons Learned*, 63-64.

¹¹⁹ These devices differ from commonly used radio frequency identification tags (RFID) which require setting up interrogators to receive the signals or using local cellular communications to transmit data.

awareness of these critical resources. Just as important to situational awareness is the staffing of the PRTs that tracking the commodities.

The national approach to staffing the ESF #3 responsibilities shares the burden across the entire organization and provides flexibility in providing response. Although the PRT member's absence from their other assigned duties is only temporary, measures can still help bridge the gaps and lessen the impact of the absence. An option is to implement the use of pre-established contracts for construction management services to accomplish PRT member's subjugated duties. Cross training individuals on their duties may also enable more flexibly. The service provided by the PRTs is worth the cost and inconvenience the additional duties may involve.

With a response made up of PRT members and duties from several organizations, it appears that the response is ad hoc in nature. However, habitual relationships developed during training and readiness exercises lead to a functional team. With multiple teams covering the different prescribed missions, it is critical to communicate the lessons learned and seek solutions to challenges across the PRT. Annual training and conferences can accomplish this to standard. USACE must continue to sustain this effort, even when challenged by other priorities.

The lead-time for response of the ESF #3 cannot be helped in a no-notice incident. However, in incidents with notice, such as hurricanes, preparations can minimize the response time. For the pre-event preparations, the higher levels of government must coordinate with the states and influence timely disaster declarations. Waiting too long to ask for help can create an even larger lag between the local

capabilities and state and/or federal assistance.¹²⁰ Timely activation of Team Leaders, leadership, and PRT members enables USACE to put into motion action necessary to initiate contracts for the prescribed missions and stage for the impending disaster. Drawing on the use of Advanced Contracting Initiative (ACI) contracts in areas most likely or of high risk may decrease response time. This also helps to maximize the use of USACE's limited organic resources.

Because USACE has limited organic assets, it must contract services to accomplish ESF #3, from debris removal, temporary roofing, and delivery of commodities. It is not feasible, therefore, for USACE to have organic capabilities to perform all of these functions. The intermittent requirements would not justify the cost. Therefore, USACE must continue to exploit its contracting capabilities, utilizing ACI. Pre-disaster contracting for support to execute the prescribed missions prevents price gouging during disasters and ensures that the services are available.

With the issue of competing priorities, the leadership must determine what takes precedence. Manage priorities with ongoing events and determining the use of resources is a leadership issue. Although MILCON, Civil Works, and support to the GRD in fighting the GWOT are all important, there may be times that USACE has to respond to

¹²⁰ States may request a presidential disaster declaration pre-event under the provisions of Section 501 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121-5206 (Stafford Act), and implemented by 44 CFR § 206.36. The states must determine that an impending incident is of such severity and magnitude that the response will exceed the capabilities of the state and affected local governments, and that supplementary federal assistance is necessary to save lives and to protect property, public health, and safety, or to lessen/avert the threat of a disaster. For example, Louisiana Governor, Bobby Jindal, requested a presidential declaration on September 7, 2008, prior to the landfall of Hurricane Ike on September 13, 2008. This enabled evacuation and sheltering of citizens, pre-positioning of assets, and other actions to commence in order to mitigate the potential effects of the hurricane and enable a swift post-event response.

the mission here at home. During the management of changing priorities, communication is the utmost of importance in managing expectations and relaying intent.

Communication is central, just as it is when boundaries blur and overlap.

Lastly, overlapping boundaries such as in the New Madrid Seismic Zone (NMSZ) event require communication to enable an effective response. The higher-level command must assume or designate the responsible headquarters when one or more District/Division is involved. Liaisons at the differing levels and agencies help to develop a common picture across the affected area. In addition to communication, liaisons help to develop relationships. Relationships established prior to the actual incident, through training scenarios to exercises, increase the potential for success. It is beneficial to make friends before needing them.

Recommendations for DSCA

Similar to performing ESF #3 duties, supporting in the DSCA role also comes at a cost. At this time, USACE shoulders the burden of the responsibility. Implementing other solutions, in lieu of or in addition to active duty USACE personnel, will share the responsibility across the military and provide more response options in the event to large-scale incidents.

Several options are available to share the burden. One option is to utilize US Army Reserve forces to bridge the gap. Reserve forces including USACE personnel/units in Contingency Response Unit-US Army Corps of Engineers (CRU-USACE) and Forward Engineer Teams (FETs) provide some of the skill sets that would enable utilization as augmentees. In severe circumstances, Training and Doctrine

Command (TRADOC) may provide augmentees from other positions such as institutional staff.¹²¹ In recent history, the response to the large-scale event, Hurricane Katrina, utilized engineer officers from the Engineer Captains' Career Course (ECCC) at Fort Leonard Wood, Missouri to assist in the relief efforts.¹²² These options may provide the additional engineer staff required in the event of a large incident or reduce the load on USACE personnel when other priorities take precedence.

The DSCA support is an additional responsibility for USACE. This means reorganizing responsibilities as priorities shift. When leadership takes on the DSCA responsibilities in support of USNORTHCOM or USARNORTH, someone else, a Deputy, subordinate, or leader outside the organization, has to assume the MILCON, Civil Works, or flood fight duties back at home station. This is even more critical when the engineer staff augmentation requires Lieutenant Colonel and higher-level engineers. This limits the leadership's ability to respond to other operations such as supporting affected Divisions/Districts in the ESF #3 of flood fight role. Still the role of providing engineer augmentation is important to fill the voids that exist in the current engineer staff of USARNORTH.

USACE provides expertise and knowledge that other force providers are challenged to equal. The familiarity with ESF #3 and the ability to liaison with USACE organizations provides situational awareness while performing the DSCA role. This

¹²¹ U.S. Army North, *ARNORTH Engineer Staff Brief*, 23.

¹²² Keith Krueger, LTC, MAJ Christopher Doniec, MAJ Dave Foster, and Ronald Catchings, conference call interview by author, February 20, 2009.

benefits both organizations, USACE in the ESF #3 role and USNORTHCOM/ARNORTH in the DSCA role. USACE is also capable of providing a response faster than through other avenues, including the RFF process.

In the event of large disasters, USACE is capable of deploying an engineer Brigadier General to support the JFLCC, usually the Division Commander. This provides the JFLCC or TF with engineer expertise and representation on the ground that would not be otherwise possible.¹²³ In instances such as Hurricane Katrina, the representation of a flag grade general officer was critical in organizing the response effort. Without the USACE engineer augmentation, the mission may fail. This risk may not outweigh the potential cost of failure.

DoD can reduce risk by changing the timing of predictable conflicting events. The DoD must schedule known requirements outside of the anticipated DSCA response window. Other requirements must be limited, such as personnel evolutions and the subsequent pay pools boards during hurricane season and end of the fiscal year. It is not possible to change the hurricane season and nearly impossible to change the end of year fiscal activities, but shifting the annual NSPS personnel evaluation cycle is a possibility.

Funding should not be a limit to deploying forces for training and real world exercises. An account should be established and available for training and deploying forces, both USACE and other augmentees, for DSCA operations. Memorandums of Agreement (MOAs) should reflect that when training or deployment is

¹²³ The formation of a three-star JTF or direction by the Chief of Engineers is the trigger for Brigadier General level engineer augmentation. See *NWD Staff Guidebook for Support to ARNORTH*.

scheduled/requested, monies are available and allocated. Controlling costs is possible through exploring other avenues. There is a potential to reduce costs through exploiting the use of online DSCA training. Additionally, USARNORTH, in conjunction with USACE, should explore the possibility of remote working the duties of the engineer augmentee duties in the MCP or OCP.

The communications infrastructure of the JFLCC command posts is not the place to attempt to save money. With the JMD and MTOE changes, the computer network must also expand. When augmentees arrive to support the command post, their computers, and other requirements should be waiting. This added expense and additional maintenance requirement will provide the necessary communication systems when they are crucial. It will also provide a redundancy for other systems.

Training exercises have numerous benefits, giving the augmentees the opportunity to collaborate with their supported staff and establish relationships. This training and interface helps to reduce the confusion over the roles of USACE in ESF #3 – public works and infrastructure, versus DSCA – engineer staff support to USNORTHCOM or USARNORTH. Training also enables the opportunity to exercise a common language.

A common language is necessary to arrive at a situational understanding. Common language throughout the emergency response has inconsistencies, namely in the use of the infrastructure analysis (e.g. SWEAT). Coordination through FEMA and the DoD is necessary to resolve terminology differences. In the case of SWEAT, the Army should conform to the FEMA approach. The DHS/FEMA is the supported agency; the Army is in the supporting role. Therefore, USACE must adapt to the terminology to

develop a common language and understanding. This has an impact that expands to doctrine and training. It is not an easy process, but necessary to remove communication barriers and promote a shared understanding during the response.

Conclusion

The function that USACE serves in response to domestic incidents is critical to stem human suffering and maintain the confidence of the American people in the abilities of their government. This monograph identifies the current roles of USACE in support of the NRF and under the authority of the Robert T. Stafford Act. It examines the mission, organization, and scope of operations in support of ESF #3 and DSCA. Points of tension and potential inefficiencies were identified through the process of analyzing the lessons learned and recommendations of USACE leadership and practitioners in the ESF #3 function, the COCOM and JFLCC engineer staff, and USACE personnel. Through the implementation of these recommendations, USACE can increase its effectiveness in responding to domestic incidents. USACE is the insurance policy that responds during emergencies to save lives, protect property, and promote public health and safety as it has done over the past 127 years.¹²⁴

¹²⁴ U.S. Army Corps of Engineers, *The U.S. Army Corps of Engineers: A Brief History*.

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